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GOVERNOR BACON HEALTH CENTER at Delaware City A New Approach for Rehabilitation of Children and Adults

M. A. TARUMIANZ, M. D.,*
Farnhurst, Del.

In October 1943 his Honor, Walter W. Bacon, Governor of Delaware, created the State Post-War Planning Commission. The Commission devoted its efforts to explore the State's post-war needs and to the preparation of a post-war program. On December 14th, 1944, the Commission submitted to the Governor a very carefully prepared report, including the essential requirements of all State agencies. (Hospitals as well as institutions.) The report was approved by the Governor and transmitted to the General Assembly of 1945 for its consideration. The Legislature considered the report very favorably, however, it deemed wise to postpone its approval until 1947. In January 1946, news of Fort duPont having been declared surplus by the Army came to the attention of the Post-War Planning Commission. After having been assured that the Veteran's Administration had made its final decision not to use the Fort duPont property for a veteran's hospital, the Governor, as President of the Post-War Planning Commission, requested the Executive Committee to proceed with the study of the Fort duPont property.

It was first planned to use Fort duPont as an annex to the Delaware State Hospital, however, this proposal was abandoned after many conferences with the various health and welfare agencies. It was deemed advisable to establish a State Health and Welfare Center, to include an eventual 600 bed institution embracing the care of children, youths, adults and the very aged.

On February 4, 1946, the State Board of

Trustees of the Delaware State Hospital received a letter from Governor Bacon in which he expressed his approval of the establishment of a State Health and Welfare Center to be operated and maintained under the supervision and guidance of the State Board of Trustees of the Delaware State Hospital.

On February 21, 1946, as a first step to purchase the Fort duPont property, the president of the State Board of Trustees and the chairman of the Post-War Planning Commission with the approval of the Governor sent their first application to the United States Public Health Service citing reasons why the State of Delaware is interested in the purchase of the Fort duPont property. The State Board of Trustees presented the facts and figures that such a Center will effect the rehabilitation of 350 children and 300 adults within 10 years; and that the people of the United States and the State of Delaware will derive an estimated benefit of over 9 million dollars, based on the accepted economic value of 15,000 dollars per man. The United States Public Health Service approved our application and transmitted the same to the War Assets Administration. On April 3, 1946, an application to purchase the Fort duPont property, was sent by the President of the Board of Trustees of the Delaware State Hospital and the chairman of the Post-War Planning Commission, to the office of Real Property disposal of the War Assets Administration. The application included a brief setting forth detailed information in regard to the proposed Center. The War Assets Administration approved our application and transmitted the same to the Federal Works agency in Philadelphia. On May 2nd, the State Board of Trustees, with the approval of the Governor, sent an application to the Federal Works agency in Philadelphia requesting permit for the immediate use of the installation of Fort duPont.

On June 1st, Governor Bacon sent his appli-

*Superintendent of Delaware State Hospital.
Superintendent of Governor Bacon Health Center.

cation to purchase the Fort duPont property to the Federal Works agency in Philadelphia. The following is the excerpt of Governor Bacon's letter:

"I, the Governor of the State of Delaware, hereby offer the purchase for the State of Delaware, the real property of Fort duPont described in your notice of sale at and for the sum of \$500,000.00 subject to a discount of one hundred per cent (100%) under the provisions of paragraph 8305.12 (h) (5) of SPA Regulation 5; also all of the personal property, equipment, and supplies located thereon and therein at and for the sum of \$50,000.00 subject to a discount of one hundred per cent (100 %) in accordance with provisions of SPA Regulation 5 revised. This property will be used by the State of Delaware as a state health and welfare center, outlined above.

A copy of application to the War Assets Administration for discount, as required, is attached hereto.

A certificate, stating that the Delaware State Hospital is a non-profit institution, as defined in paragraph 8305.2 (6) (4), and that the property is being acquired for health and welfare purposes, is attached hereto.

It is requested that action on this offer be expedited so that the State Board of Trustees of the Delaware State Hospital can open "The State Health and Welfare Center" as soon as possible."

On October 8, 1946, in the presence of many federal and state officials, as well as members of the State Medical Society of Delaware, Governor Bacon signed the agreement of the transfer of Fort duPont to the State of Delaware by the Public Building Administration; this agreement was a temporary procedure, until the deed of the property is prepared and presented to the State of Delaware.

Governor Bacon in accepting the property said, "I predict that within a few years, the benefit derived from this project will rank with those of our original road and school building programs and the building of our new Delaware River Bridge. This project furnishes buildings and grounds which, with a minimum of expenditure, will give to our State an ideal set-up, and bring to many benefits and oppor-

tunities denied at present, not only in our own state, but in many other communities.

It is most gratifying to know that we are transforming a plant designed entirely for war purposes to one beneficial to the health, happiness, and welfare of our state, and a place where many may be rehabilitated into useful citizens.

I urge the interest and cooperation of all Delawareans in this great undertaking, and feel assured that the betterment received by those who may use these facilities will well repay us both as a state and as individuals."

On January 30th, 1947, the transfer of the Fort duPont reservation to the State of Delaware was completed.

The Deed for the Fort duPont reservation was transferred to the State of Delaware with a definite provision that the property will provide for a period of twenty-five years, care and treatment for emotionally handicapped children, crippled children, children awaiting assignment to foster homes, children awaiting trial in the Family Court, alcoholics without psychosis, epileptics without psychosis, bed ridden senile cases, an emergency hospital unit, and any other related welfare problems, and that the veterans of both wars and their families will have priority to the service rendered by the Center.

The General Assembly at its 1947 session passed adequate bills for accepting the Fort duPont reservation and turning over the same to the State Board of Trustees of the Delaware State Hospital and authorizing them to establish the Governor Bacon Health Center, with the various departments incorporated in the agreement with the Federal Government.

The General Assembly appropriated the necessary funds for the repairs, remodeling and furnishing of some sixty-five buildings at the Center, and for maintenance and care of those who will be admitted to the Center.

The future Governor Bacon Health Center will be divided into twelve sections.

Section 1, will take care of 128 children who are either mildly or severely maladjusted or psychotic. There will also be cottages for children awaiting assignment to foster homes, which will be known as "Study Home."

There possibly will be special cottages for children awaiting trial in the Family and Juvenile Courts.

Section 2, will incorporate buildings for nurses and employees.

Section 3, will have recreational facilities, including vocational, occupational and rehabilitation shops.

Section 4, Residences for physicians.

Section 5, will be utilized for 100 men and women alcoholics without psychoses.

Section 6, the first floor of this large permanent fireproof building will be utilized for 85 crippled children, male and female, and the second floor will be utilized for 120 male and female bed ridden aged patients.

Section 7, will be utilized as a medical center which will include various laboratories, operating and orthopedic rooms, x-ray and physio-therapy division, as well as research department.

Section 8, will be utilized for 100 male and female epileptics, without psychoses, including children.

Under Section 9, there will be nine buildings which will be utilized for children and adults of the colored race, giving them the same opportunities and type of care and treatment.

Under Section 10, there will be various buildings which will be used for the utility department.

Under Section 11, there will be a special emergency hospital unit to accommodate 250 patients and 150 employees in case of a national or state disaster.

Under Section 12, Administration Department.

In addition to these 12 sections, there will be a chapel, which will be utilized for non-sectarian services by the chaplains of the Center.

The Center will have various fields for sports, parks, vegetable and flower gardens.

The Center has 320 acres of land and has an excellent outlet to the Delaware River with an already existing pier.

ROLE OF THE EMOTIONS IN DISEASE

FORREST M. HARRISON, M. D.,*

Farnhurst, Del.

In all human beings there may be observed certain types of responses that are closely allied to instinctive acts. These are the emotional reactions which result from special kinds of stimuli affecting the entire organism. An emotional reaction, however, is not merely a physiological response to a stimulus. It is the reaction of an individual to a situation which impedes, facilitates, or stimulates some instinctive tendency. We recognize emotion in others by a characteristic behavior, and we are cognizant of physical changes occurring in ourselves when we are experiencing an affective state. In other words, the emotions, whether mild or strong, are always dependent upon, and are accompanied by, alterations in the physiology of the body.

There is a considerable mass of evidence, based upon pathological and experimental lesions, that the optic thalamus is the great sub-cortical center for certain primitive forms of the emotions, as well as visceral sensations, and the feeling tones of pleasure and pain. These are given expression in muscular movement through the rubro-spinal tract. The endocrines, especially the thyroid and adrenal glands, have a definite influence on the affective responses, but they appear to function mainly by discharging protective hormones into the circulation. The emotions serve to aid the organism in undergoing changes for driving it into a state of activity. In other words, by means of the emotions, the attention of the organism becomes focused upon some particular point in its environment, so that its energies may be coordinated for a specific purpose. Moreover, the emotions intensify the marks made by experience, with the result that upon the repetition of a stimulus, a more perfect response will be evoked in the future. It will be seen, therefore, that the emotions are related to a phase of behavior, as well as to feeling, and that they are adaptive responses. In this sense, they are of tremendous biological significance and importance to the individual.

EMOTIONS AND FUNCTIONAL DISORDERS

The trend of progress in medicine until com-

* Assistant Superintendent and Assistant Director, Mental Hygiene Clinic, Delaware State Hospital.

paratively recently has been toward the interpretation of illness in terms of tissue change. In fact, many physicians are still obsessed with the idea that they must discover an organic lesion or a defect in structure in order to satisfactorily account for disease in human beings. It is true, of course, that the causative agents disclosed by bacteriology, the illuminating contributions of the X-rays, and the brilliant achievements in the field of pathology, have added immeasurably to our knowledge of sickness in general. Moreover, the advances in these fields have been largely responsible for the many cures and specific treatments which have been introduced with such gratifying success.

Since the turn of the century, however, an important change in the phenomena of disease has occurred. The seriousness of infection has been undergoing a remarkable decline. Diseases formerly regarded as plagues are now largely under control or have almost disappeared. At the same time, the emotional stresses and strains incident to the intense drive and pressure of modern life have been on the increase. This has resulted in the widespread occurrence of a large group of disorders characterized by many and varied physical complaints with no underlying pathology or disease to explain them.

This group of disorders has been termed functional disorders. They are spread thickly throughout each department of medicine and surgery, but they are particularly prevalent in the endocrine, gastro-intestinal, cardiac, gynecological, urological, and metabolic clinics. It has been conservatively estimated that from 60 to 70 per cent of the patients seen in the dispensaries of our large hospitals, and in the consulting rooms of private practitioners, excluding the acute infections, present symptoms for which no adequate organic basis can be found.

In spite of their frequency, however, functional disorders are commonly neglected, misunderstood, and improperly treated. They command interest only as long as they are considered to be diagnostic problems. As soon as it is discovered that the patient has "nothing wrong with him," as I have often heard it expressed, he is passed over lightly, no further

attention is paid to him, he is labeled neurotic, and he is referred to a psychiatrist.

From a technical standpoint, most of these cases do come under the broad heading of the psycho-neuroses, but many of them do not. For practical purposes, the patient who has a functional disorder may be suffering from severe subjective sensations, due either to an increase or decrease in the physiological activities of one or more organs in the body, or to the patient suddenly becoming conscious of a normal function that usually goes unnoticed. In other words, functional disorders represent nothing more nor less than an ill-adjusted timing of the reactions of the various organs and an imbalance of their relations to one another. The ultimate causes of functional disorders are to be found, not in any gross structural changes in the different organs, but rather in the influences emanating from the emotional life of the patient, which may affect in one way or another any portion of the body.

We see evidences of the role played by the emotions in producing physical complaints and symptoms almost daily in our routine practice and ward rounds. A few examples will suffice. Instead of being due to indiscretion of diet or local irritation, vomiting may be an expression of a deeply felt disgust. Fright and anxiety often produce diarrhea and increased frequency of urination. Strongly stirred emotions may cause palpitation, tachycardia, premature beats, precordial stress, and other signs of disordered cardiac function. The flushing of embarrassment, and the blanching of fear, is proof of the effect of these emotional states upon the walls of the arteries. The respiratory system is likewise profoundly influenced by the emotions. We "catch our breath" when we experience fear, and under certain other emotional circumstances, we may breathe deeply or even develop a neurotic dyspnoea. Nervous and emotional tension often cause skin phenomena, such as urticaria, pruritis, and other dermatoses. The effects of anxiety on the central nervous system are manifested by such complaints as weakness, vertigo, numbness and tingling of the extremities, ringing in the ears, insomnia, and other signs. These examples, and many others too numerous to

mention, furnish abundant proof that emotional factors have a decided influence on the physiology of the body.

It may be surmised, from what has already been said, that the symptoms of functional disorders may simulate or suggest almost every known type of physical disease. For this reason, many physicians fail to recognize functional illness and treat the patient as though he were organically diseased. Then, too, modern clinical medicine attempts to establish the diagnosis of functional disease by ruling out organic disease through medical history, physical examination, and laboratory investigation. It should be emphasized that the diagnosis of functional illness must be established on its own characteristics and not merely by the exclusion of organic disease. In other words, a functional disorder has its own distinctive features which may be brought out by a study of the physical and emotional aspects of the personality.

It will be seen from the above that it is highly important for all physicians to make, as a routine procedure, a definite inquiry into disturbing emotional factors in every medical examination. This should include a history of the mood swings, the special preoccupations, psychic trauma, sex adaptations, and other life problems that may suggest themselves in the individual case. Information thus obtained will shed considerable light on the source and purpose of any illness determined by psychological factors. In addition, it would enable the physician to discover emotional symptoms which might be superimposed on actual organic disease.

An investigation of the emotional life, for instance, may disclose the fact that the digestive disorders in a particular patient began at a time when he lost a huge sum of money, due to speculation, and that they have recurred whenever he has been in financial straits, or when there has been a marked fluctuation in the stock market. Or it may be learned that a few years ago, upon arriving home from a business trip, a patient was informed of the sudden death of a close friend from coronary occlusion. He was overcome by the shock of the news, developed an attack of precordial pain, palpitation, and tachycardia, and then promptly fainted. Consulting his physician,

he was told that he did not have heart disease, and he was cautioned not to worry about it. For over a decade he has not even so much as mentioned it, but his symptoms have continued, he has greatly restricted all of his activities, and he has lived constantly with the fear that he too may pass away suddenly. Again, we may discover that the pain in the back, of which a patient complains, made its appearance when she first felt the pangs of domestic incompatibility, and they became pronounced and more acute whenever she has a dispute or argument with her husband. It is also frequently found that severe headaches develop when a patient has a disagreeable task to face, an embarrassing situation to digest, or when he is dodging something disagreeable.

The patient is usually unaware of the relation of his conflicts, tensions, and fears to the symptoms for which he seeks relief. If the physician, therefore, is not familiar with the marked influence of the emotions in the etiology and course of physical complaints, the psychic source of the ailment may remain unsuspected, and the patient may suffer from years of invalidism. These hidden emotions must be recognized if the proper rapport between the doctor and patient is to be assured. Neglect of the emotional problems that are involved in the numerous complaints of the patient by ethical practitioners is today lending aid and comfort to the cultist, and is wasting a powerful instrument of treatment.

Functional disorders really belong to the field of general medicine. It is often extremely difficult to determine whether we are dealing with an organic disease or a pure disturbance of function, and the differential diagnosis requires the broad training in the use of clinical and laboratory methods which forms the equipment of the internist. Then, too, the patients themselves not infrequently fear the stigma of any professional contact with the psychiatrist, and they prefer to go to their family physician. Certainly this attitude should not exist, but since it does, it is best to recognize it, and make the most of it. Many of the cases of functional disorders can be helped by the general practitioner without the aid of highly specialized psychologic technique, if he will but appreciate their

significance and interest himself in their treatment.

EMOTIONS MAY CAUSE PHYSICAL DISEASE

Not only do emotional conflicts find expression in the guise of functional disorders, but if they occur repeatedly, and if they dominate the life of the individual, it is logical to suppose that they might leave an imprint upon the tissues, and produce organic or physical disease. Let us cite a few examples of the possible relationship of psychological and emotional disturbances to alterations in structure.

The effects of the emotions and nervous strain, which tend to be greatest in the hollow organs, consist for the most part of changes in muscle tone, circulation, and secretion. Emotional conflicts, for instance, often cause a spasmodic contracture of the musculature of the stomach, and a local constriction of the terminal blood vessels. Small areas of ischemia or hemorrhagic infarction are thus produced, leaving the overlying mucosa exposed to the digestive effects of its own hyperacid juices, and rendering it more susceptible to infection. In this way, regressive, necrobiotic tissue changes may be initiated or aggravated. There is much to suggest that this is the mechanism underlying the etiology and pathology of peptic ulcer. Mucous colitis and ulcerative colitis may also be regarded as physiological expressions of some deep-seated emotional conflict. When the latter is removed, the intestinal motility returns to normal and the symptoms often promptly disappear. Acute episodes of emotional origin may hasten the development of organic heart disease, which might be indefinitely postponed in the absence of psychic stress. Clinical and pathological studies have brought to light the fact that the morbid manifestations of such an organic disease par excellence as angina pectoris appear to be controlled, to a certain extent at least, by the emotions. The relationship of psychic factors to the onset of hypertension is well known. Anxiety, fear, and sudden shock quite often bring on a frank exophthalmic goitre. We also note the apparent effect of emotional conflicts on the blood sugar level and in the genesis of diabetes mellitus, especially those which operate at the unconscious level, and which involve threats to the personal safety, security, and prestige

of the individual. The occurrence of attacks of bronchial asthma is more or less conditioned by emotional factors. Chronic arthritis is another organic disease which is due largely to certain strong emotional influences causing tensions and spasms of the muscles and thus affecting the working of the joints.

As a matter of fact, we should not be too greatly concerned with the possible relationship of psychological disturbances to structural alteration. The problem of whether long continued emotional stresses can produce organic disease is rather involved and complicated. The evidence is beginning to point in this direction, but the question cannot be proved or solved at this time. It should be emphasized, however, that the emotions as etiological factors in organic disease must always be taken into consideration.

EMOTIONAL ASPECTS OF ORGANIC DISEASE

Not only do mental conflicts produce a wide variety of functional disorders, and also possibly bring about changes in structure, but the presence of organic disease invariably creates new emotional problems or else reactivates and aggravates old ones. In other words, it is now realized that practically all physical illness has associated mental and emotional aspects. The psychological concomitants of clearly established organic disease should always be recognized by the physician because of their importance in both prognosis and treatment.

Every sick person, no matter what the nature of his malady may be, shows some variation from his normal mental state. Scarcely a patient who is ill from a physical disease or after a surgical operation thinks and acts as he does in health. There may be nothing more than a group of disagreeable feelings, which require no particular attention directed to their relief. On the other hand, bodily disease of any kind may be accompanied by apprehension, which, in some instances, develops into a state of tension and anxiety with sweating, flushed face, restlessness, palpitation, and actual fear of dying. Some patients respond to their illness with gloominess, discouragement, or definite depression. Still others show distrust and become suspicious. Another response to physical illness is irritability coupled frequently with com-

plaints by the patient concerning the nursing and medical care he is receiving. This is really a defense mechanism. Many patients who are physically ill adopt other means of psychological escape, such as refusal to accept the fact that they are sick. They may refuse to be examined or decline to take medicine or other form of treatment, insisting it is unnecessary. These emotional factors may lower the resistance of the patient, aggravate the organic pathology present, and hinder recovery. In other words, the damage suffered by the emotional life and mental health of the patient through somatic illness or disability may be more serious and permanent than are the physical results of the organic lesion.

For a long time the internist has been studying disease, and treating it, without a sufficient appreciation of just how the individual who had the disease was reacting to it. In other words, when emotional factors are associated with actual organic disease too little attention is paid to the emotional factors. This tendency needs to be corrected. The general aphorism in psychiatry, treat the patient, not the disease, may be applied with equal advantage to all branches of medicine. One or two examples of this principle will suffice. A patient who has heart disease may be disturbed much more by worry over his wife and children than he is by the dyspnoea from which he suffers, and as a result of his brooding, he may develop a long train of neurotic symptoms. In such a case, a talk with an understanding physician, who tries to make the situation clear to him, and who then has the social service department investigate and take care of his home conditions, does more to help him and straighten him out than a book full of drugs or diets. The patient who is to undergo a surgical operation for some gynecological condition may be very much concerned over the probability of success, she may be thinking of the subsequent mutilation and disfigurement that may be produced, and she may fear the loss of a vital structure or capacity. From the standpoint of the surgeon, the problem is the same as in many other cases

he has had, but the whole procedure to the patient is most profound. Attention to her peculiarities and emotional reactions may not only prevent considerable shock, but may bring a favorable outcome. This is only an indication of what can be accomplished by treating the individual or emotional factors in disease. Neglect of them may make all the difference in the world in the outcome of the case, and failure to deal with them adequately will tend to prolong convalescence or encourage a reaction of invalidism.

The average clinician approaches the consideration of physical disease with far too little knowledge of its psychic antecedents and implications. The well-informed and successful physician, however, with a broad experience and point of view in the practice of medicine knows that emotional conflicts exert a tremendous influence on the etiology and prognosis of disease. A properly cultivated appreciation of this fact is as necessary to the trained internist as is a knowledge of the biochemical or physiologic changes which accompany certain diseases. It is a part of the duty of the clinician to recognize and determine by appropriate tests these latter factors in disease without calling upon the chemists and physiologists to point them out. In the same sense, it is essential to the efficiency of the practicing physician that he should be alive to the emotional and psychic elements in disease without seeking the aid of the psychiatrist. To overlook psychological factors at an early stage is just as grave an error as to fail to recognize and diagnose an infective process or surgical anomaly, a constitutional disorder, or pneumonia. The physical and mental components of the personality are so closely interwoven and interdependent that they cannot be separated. In order, therefore, for the physician fully to do his part in helping his patient to become a healthy, well-adjusted individual, he must understand the needs of the mind no less than those of the body.

OBSERVATIONS ON THE IMPORTANCE OF TIME IN THE ETIOLOGY OF PSYCHOPATHOLOGY

EDWARD J. KOCH, M. D.,*

Farnhurst, Del.

In psychiatry, as in general medicine, chronicity of a disease process is commonly regarded as militating against complete recovery. Thus a patient who has been suffering from a severe unbroken neurosis or psychosis over a period of three or four years, or longer, has in most instances forfeited any chance of regaining his preneurotic or prepsychotic state of mind. He may be able to adjust himself to life outside of an institution and even be gainfully employed but his personality does not revert to its pristine state. There are perhaps reasons bound up in the personality and in the experience of the patient which give the cue as to why his mental disorder should follow an acute and benign course on the one hand or a chronic and malignant course on the other but these reasons are not always evident at the outset of the disorder. From a purely objective standpoint the degree of chronicity may be regarded as the measure of malignancy or irrecoverability of the disease process.

The psychiatrist is often sorely beset when asked to offer a prognosis early in the course of a mental disorder. He hesitates to predict an outcome and seeks to postpone such a pronouncement until he has had much more opportunity to observe the course that the disease follows. This is a very justifiable conservatism. He knows, in a general sense, that the seriousness of the disease is proportional to the seriousness of its causes but the absolute gravity of the causes is often impossible to appraise without detailed knowledge of the ensuing illness.

Nevertheless, it may be stated that if time or duration is an important prognostic factor as applied to the psychotic or neurotic phase of the illness, then it is equally important in considering the prepsychotic or etiological phase of the disease. Briefly, this means that any factor exerting a palpably adverse influence on a personality is important in proportion to the period of time over which it acts. Thus if an individual is obliged to devote himself to a bedfast relative over a period of one year to

the exclusion of more appealing and pleasurable activity, he may show little or no reaction to the deprivation. But if his vigil continues for four or five years there has gradually been laid down the basis for a more or less serious mental disorder even though he be released from the vigil at the end of such a period. In psychiatry, days and weeks and months are not usually of great significance. But a period of years spent in non-productive, frustrating or unsuccessful strivings is calculated to take its toll either in an outright disease process or in permanent alterations of the personality structure.

The following two cases will illustrate the shattering effects of prolonged frustration: Case No. (1) Male. Age 40. First seen in 1936. History as follows: There was nothing unusual in his birth or early development other than he was of dull normal intelligence. His IQ later proved to be 85. He was reared a strict Catholic and had never missed Sunday Mass up until the time of hospitalization. He was drafted into the military service in the First World War when he was about 18 years old. He saw no overseas duty but was separated after about a year. He liked the military service very much and was particularly proud of his uniform. After demobilization he joined the American Legion and often marched in Legion parades. At age 22 he married. He went to work as a salesman of small gadgets, covered a small territory and was obliged to work very hard to provide an adequate living for himself, his wife and his increasing family. Over the years he became the father of five children. It was often necessary for him to work late Saturday night to help out the family exchequer. He had little time for recreation. Occasionally, he attended salesmen's conventions and in two instances was prevailed upon by fellow salesmen to have a "date." He did not enjoy these dates but at the same time entertained no great feelings of guilt relative to them. One Saturday night he had to work particularly late and the following Sunday morning when his wife attempted to arouse him to go to Mass he turned over and fell asleep again. Taking pity on him his wife permitted him to sleep until 10:30 in the morning even though this broke the habit of a lifetime. When she went in to

* Clinical Director, Delaware State Hospital.

awaken him again he suddenly arose up out of bed, as one sleep-walking, and without comment, he placed his hands about her throat and began to throttle her. Fortunately, she was able to emit a loud shriek, whereupon the patient seemed to regain full consciousness with little recollection of what he had done. The wife did not remonstrate with him realizing that he had been asleep. About a month later she permitted him to sleep late on another Sunday morning. She went into his room upon hearing a sudden cry from the infant son who slept in a crib next to the patient's bed. In the semi-darkened room she saw the patient, who had grasped the child by the feet, slung it over his shoulder, about to bash its head against the wall. Again she shrieked and again the patient seemed to come to full consciousness very puzzled as to what he had been doing. After a family council it was decided to send the patient to the hospital. In the hospital he showed little true remorse for what he had done and did not seem to hold himself responsible for the acts inasmuch as he had been asleep while perpetrating them. After further study of several months he was sent home but shortly thereafter he was returned to the hospital having made another attempt on the life of one of his children. Within a few days he became hallucinated and paranoid, a full-blown case of *Dementia Praecox*.

In this case it may be said that the patient's unconscious took over. After a slight relaxation in the rigid framework of his daily living, i. e., after his failure to attend Mass, his unconscious chose the simplest, the most primitive, and the most direct method of doing away with those long-standing impedimenta which effectively blocked his ego expressions. One might speculate that if he had not failed to attend Mass and thus weakened his armor he would have made no attempts on the lives of his wife and children. One might also speculate that had he not married at the age of twenty-two but had instead devoted more time to sowing his wild oats, such a shocking outcome might not have happened. It is important to note that with an intelligence quotient of 85 he could scarcely be expected to gain insight into his difficulties.

Case No. (2). A second lieutenant in the

Army, first seen in 1944 when he was being tried by general courts martial for quadruple murder. History as follows: He was reared in respectable but very poor circumstances and had few advantages as a boy. His education had been curtailed by the necessity for going to work. Physically he was strong and handsome, and at an early age, he acquired the nickname "Buck," probably because of certain swashbuckling tendencies. He married at the age of nineteen during the depths of economic depression and was never happy with his wife. He became a shoe salesman and his best earnings were \$35 per week. He became an amateur boxer, acquired considerable facility at fisticuffs, and made quite a name for himself. He was drafted into the Army in 1942, went to Officers Candidate School about a year later, and was commissioned a Second Lieutenant in the Infantry. He had always wished to command men and was looking forward to overseas duty. Nevertheless, it was necessary to transfer him to a different branch of the service because the Infantry had become overstaffed with officers. He still hoped to command men albeit that he was disappointed at being transferred out of the Infantry. In his new assignment he was training with a group of colored soldiers forming a port battalion, a job very distasteful to him. He spent many of his off-duty hours carousing and came to be regarded as a sort of Don Juan among a group of younger girls employed at his post. On one occasion he beat up a civilian police officer who had started an altercation with him in a bar, and as a result of demands on the part of the civilian police to take action against this patient, the military authorities summarily sent him overseas as a cargo security officer, an individual assignment. He languished in Karachi, India, for a period of months and lost all of his enthusiasm for overseas duty. Upon his return to this country and to his old post he resumed his carousing and became evermore intimate with the younger female members of the stenographic force. However, he soon discovered that he was to be sent overseas again with the colored troops. A few days before embarkation he and a fellow-officer, who was twenty-three years old, had Sunday afternoon dates with a nineteen-year-old girl

from the office and a friend of hers of the same age. After a few rounds of drinks, while the four were sitting in an officer's club, the patient turned to his fellow-officer and asked: "Do you want to go overseas?" The fellow-officer stated that he was not particularly anxious to do so but that it was his obvious duty, whereupon the patient said quietly, "I don't think you are going overseas. In fact, I don't think you are going to leave here alive tonight." He suddenly pulled out a revolver, shot and killed both of the nineteen-year-old girls and then seriously wounded his fellow-officer. He ran out of the officer's club into his barracks where he shot and killed his commanding officer. He commandeered a staff car in an attempt to escape, was later accosted by two civilian policemen, one of whom he shot and killed before he was wounded himself. The patient later committed suicide while awaiting execution.

As in the previous case it may be speculated that this patient might never have committed such murders had not the previous eleven years of his life been spent in ego frustration. Even as a second lieutenant he was earning more money than he had ever earned in civilian life. It is interesting to note that in seeking out companions in the military service his attention fell upon younger individuals who were the same age that he was when he took the fatal step of getting married. One does not draw definite conclusions from the fact, but it is certainly interesting to note that both of the murdered female companions were exactly nineteen years old and that the patient had never seen one of these girls before the day he murdered her. The entire episode may be interpreted as a symbolic effort on the part of the patient to obliterate forever the tantalizing illusion of youth. Very probably, he would have survived twelve years of defeat without violent outcome had he not been faced with the prospect of relinquishing what was in effect a continuation of his life at age nineteen for an indefinite period of dreariness and further ego-thwarting overseas.

The following case will illustrate the importance of the duration of etiological effects in a somewhat different way. Case No. (3). Male. 20 years of age when first seen in 1938. At this time the patient was definitely schizo-

phrenic. The history is as follows: The mother was highly neurotic and somewhat inadequate. The father, while extremely wealthy, tended to dodge his family responsibilities. One brother was subject to convulsive seizures. Patient was healthy until aged five at which time he developed serious bilateral mastoid disease necessitating prolonged bedrest and six bilateral mastoid operations in the course of the next nine years. During this period he was attended by a nurse, a governess, and a tutor. He was unable to play with other children, and except for occasional visits with members of his family, he saw no one but the nurse, the governess and the tutor. At length, at age fourteen he had achieved good physical health without impaired hearing. Shortly after his recovery he was sent to a prep school and within a matter of weeks had developed marked paranoid tendencies, looseness of speech and apathy. He showed no improvement with prolonged insulin shock therapy.

In this case one might state that the patient was out of circulation, so to speak, during nine of the formative years of his life. He was completely out of touch with his own generation and, from a social standpoint, his personality had attained no significant development. This handicap was too much and shortly after his first introduction to his own age group malignant symptoms supervened.

The following case, revealing much less serious psychopathology is introduced again to illustrate the importance of the temporal factor in etiology. Case No. (4). Male. Age 36 when first seen in 1945. Patient was a second lieutenant in the Armed Transportation Corp., brought in for psychiatric evaluation following his apprehension by Police in Melbourne, Australia, for an open homosexual act with a merchant seaman in a public park. History as follows: There was nothing unusual in the early history until the age of thirteen at which time the patient's parents, both very strict and uncompromising with respect to sexual morality, took the boy to see an uncle

who was dying of what was probably rupial syphilis. The parents told the patient that this disgusting sight was the result of the uncle's lack of discrimination in choice of female companions. The spectacle made such an impression on the patient that he resolved thereafter to have nothing to do with women, and as a result, his sexual drive found outlet through homosexual channels. As his general personality matured he began to realize the overdrawn character of his parents' admonitions and had even developed by age thirty some crushes on girls. Nevertheless, from a physical standpoint he remained homosexual in spite of efforts at heterosexual relationships.

One feels constrained to state that sexual traumata, emotional shocks, and other concrete episodes in the life of the patient have been highly overemphasized in etiology. It is granted that such an episode produces emotional effects, but the important thing, as exemplified by this case, is that such emotional effects lose their momentum in due time. It is highly improbable that this patient's homosexuality could be altered by any psychotherapeutic or psychoanalytical approach inasmuch as homosexuality had become an ingrained habit, in this instance over a period of twenty-three years.

Every case of psychopathology has its individuality just as every personality may be differentiated from every other personality. The differentiating factors in personality are largely constitutional and are often very difficult to assess. It is experience alone which tends to throw these constitutional factors into relief. Be that as it may, a functional mental disorder is more than a resolution of constitutional tendencies. The factor of experience, or lack of it, plays an integral role in the development of the disorder, and the most important aspect of any experience is not its intensity, but rather its duration. The duration of any psychogenic influence should be thoroughly consulted before prognosis is offered.

TRENDS IN MENTAL HYGIENE

JOHN A. DOERING, M. D.,*

Farnhurst, Del.

"Tommy is a bad boy!" That taunting cry of the school grounds is a challenge to our civilization and is but one of the many problems facing us today. Tommy might be a "sissy," a "thief," or an "outcast," whatever his presenting problem, it is fundamentally one of lack of adjustment to the demands of his society and it is someone's responsibility to assist him before his behavior pattern becomes fixed or irremedial. This is a psychosocio-educational problem and is a major field of endeavor for those engaged in Mental Hygiene.

Credit for coining the phrase "Mental Hygiene" is attributed to Clifford W. Beers who, in 1908, published his classic "A Mind That Found Itself." The book started a movement, not only for reform in mental institutions but to wage an education war and to "cure the disease (insanity) by preventing it." Thus Mental Hygiene is a rather all-inclusive program in the field of mental illness and of necessity closely related and entwined with other professions seeking the common goal of a healthy mind in a healthy body, contentedly living in a peaceful world.

The men who pioneered the early clinics were heroes in every sense, for not only did they have to develop techniques for handling problems when little was known as to causes or mechanism, but they were forced to battle public apathy and age-old superstitions about mental disease. These early clinics were not the Guidance and Therapy Centers of today. Concepts have undergone gradual transition as our knowledges have increased. Emphasis has changed as problems vary and community attitudes react to education. Now there are not sufficient personnel to supply the apparent needs. The medical profession and the public have become so aware of the effect of emotional and psychology factors that some writers feel "too many...are seeing psychiatric disorders in perfectly normal emotional swings." (C. C. Burlingame).

To view the changes and trends within a clinic and thus by reflection viewing public attitude as well, let us consider our own State.

* Acting Clinical Director, Mental Hygiene Clinic.

In April, 1929, the General Assembly of Delaware authorized the establishment of an all-purpose Mental Hygiene Clinic under the directorship of the Superintendent of the State Hospital. The Clinic began functioning in August of that year and was organized on the still accepted principle of teams of psychiatrists, psychologists and social workers working together as a unit, with the psychiatrist correlating all the data for an understanding of the total personality.

The first annual report of this Clinic is illuminating. There is no mention of referrals from physicians or social agencies. The bulk of examinations was primarily psychometrics for school placement or determination of feeble-mindedness, referred by schools or correctional institutions. As the annual reports are reviewed progressively, it is noted that examinations for retardation show a relative decrease so that now less than one percent is being referred for suspected mental deficiency.

This is significant for several reasons. First, it showed the need for a survey of intellectual status among pupils to assist in grade placement and special education. Much of this work is now being performed by the Department of Special Education and Guidance in the State and City Departments of Education. Secondly, it called our attention to the possibility of retardation of individual functions without absolute mental deficiency, yet giving the appearance of such. This phenomena is most apparent in the verbal retardations when development of language function is relatively delayed. Since language is the keystone of learning and communication, the child appears to be retarded. Much of the recent work emphasizes "handedness" and "mindedness" in relation to language development so that we may be more hopeful about the future of that function.

Juvenile delinquency has always been a social problem and is of major concern to this Clinic. In studying the earlier records, there is again noted changes in concepts. The early studies emphasized intellectual ability and due to the makeup of the psychometric examinations many delinquents of inherently average capacity were considered to be of

limited intelligence and their delinquency due to their lack of comprehension. Later, it was found that many delinquents were verbally retarded, so their difficulty in learning and misbehavior were naturally linked together, a not altogether false concept. The influence of environment has apparently always been considered a potent factor, but with the trend toward psychodynamics and reactions it assumed a much greater role and today holds a prominent place in all work with delinquents. Workers in the field of delinquency do not feel that any one factor is the whole answer; the total personality i. e. hereditary factors, environmental influences, inherent psychological traits, education and organic factors all contribute to make the delinquent what he is. The child from a broken home inherits those factors from his parents which lead to the breaking up of the home. His cerebral functioning may be impaired not only by hereditary deficiencies but by disease or malnutrition in prenatal and early developmental years. His early training is deficient for numerous reasons, i. e., absence of one or the other parent, neglect by the other due to need for employment, or unsatisfactory neighborhood and recreational facilities because of the economic level. Then, too, his emotional development is distorted, not only because of the imbalance and stresses in the "broken home" but because from an early age his inherent—probably inherited personality defects make him a difficult child to cope with.

Closely related to the delinquent who comes to the attention of the Courts is the "behavior problem," the child who fails in some respects to adjust in the home or school but is not outrightly anti-social. It is the experience of most clinics that this category is being noted and referred in increasing frequency, indicating an awareness of mental health needs on the part of the community. In our experience such referrals show definite geographic localizations, revealing the need for continued community education. The ones apparently needing guidance most rarely seek it from their own volition, but upon the recommendation and sometimes urging of physicians, schools and social agencies. The better informed generally voluntarily seek assistance with adjustment problems, just as they are

usually more conscientious in attending to other matters of health.

In retrospect mental hygiene appears to have developed gradually with modification of concepts as our knowledge increased. At first psychometrics and interpretation of behavior by means of measurable intellect received considerable favor. This was unsatisfactory for not only were the tests deficient in many respects but there were many variables that are not even at present measureable. Then the impact of the analytical school is noted and the relation of emotional conditioning received recognition. This gave much more insight but did not solve all the problems. Now, as Hoskins and others write, in debating the relative potency of "nature and nurture," the nurture school finds itself charged with the burden of proof. A review of the literature of today reveals evidence of studies of the effects of genetics and organic factors in deviations of personality. These report on the findings in twin studies, the personality changes following frontal lobotomy, the relation of Rh factors to mental deficiency, the abnormal electroencephalogram tracings in some personality deviations and the frequent referrals to psychosomatic medicine.

In accord with this trend, several clinics simultaneously approached the problem of hyperactive, impulsive behavior with the same basis concept, that it was organic in origin and might be related to epilepsy. In addition to further study, they began anti-convulsive therapy with some very satisfactory results. Some of the studies reveal a relation between therapeutic response and encephalographic findings; others, notably our own, are finding neurological evidence of dyskinesias, suggesting the relation of motor function immaturity with hyperactive, distractible and impulsive behavior. One might conjecture that when such findings are associated with language retardation or motor immaturity, there could be a generally immature or impaired functioning involving the relation between the frontal lobes and the hypothalamus and thus abetting anti-social behavior. Our work so far suggests this possibility, but lacks conclusive proof as laboratory evidence is not readily available. This trend may on first inspection appear pessimistic—a predestination condemning a

child for his poor selection of parents. But the thought need not be fatalistic; all inherent traits are modifiable by environment and training, and perhaps by medication, a much less formidable program than the re-education and training of all parents.

Neurologists and pathologists are not the only contributors to our newer knowledge of personality. The psychologists are constantly going forward and their recent contributions have been of great assistance. The various projection techniques, such as the Rorschach or Thematic apperception tests and the analysis of psychometric test factors, such as presented by Rappaport or Jastak, give us objective leads or trends to assist in diagnosis and understanding the individual. Our experience reveals a remarkable qualitative relation between the clinical and psychological findings, though the quantitative factors appear in need of refinement.

As can be seen from the above, maladjustments and behavior problems are rather complex and no one form of therapy is self-sufficient. All available community resources are needed and must be coordinated to be effective. At the sociological level we must seek economic security for all. Slum clearance and recreational programs are a must. Interest and active participation in community activities have therapeutic, as well as social values. Our educational system has a great responsibility, for not only do our children spend a major portion of their lives under the schools' guidance, but certain intellectual defects, such as language deficits, are directly an educational problem. Education should be adapted to individual needs, not to mass production higher education of those who may not benefit.

With education and community awareness, naturally there is the opportunity for earlier recognition of mental disease and the golden chance to "nip it in the bud." This has changed some of the older diagnostic concepts so that now such terms as Schizoid Personality have become more common and the personality changes are recognizable for what they are, an early or incipient schizophrenia. Such problems are now referred for vigorous therapy and cases, which in the past proceeded to a frank psychosis, are now either hospitalized

for relatively brief periods or receive electroshock on an out-patient basis. Frontal lobotomy has been used in problems of anxiety which a few years ago would have suffered in and out of institutions for lack of helpful therapeutic measures.

Drug therapy is receiving more attention and study as might be expected with the trend toward the organic. Anti-convulsant medication is being studied in relation to behavior disorders. Benzedrine and related compounds have a decided effect in the milder depressions. The vitamins, particularly the B-complex, seem to have a beneficial effect in both the anxieties and the neurasthenias. Other preparations are being studied.

Individual psychotherapy very definitely has its place but because of the shortage of personnel and the economic factors involved must be supplemented by other means. Many clinics are using group therapy and its modalities deserve further study. It is a means of utilizing the available man-power to the greatest advantage and has the additional benefit of helping the patient receive strength in the group identification and insight into their own problems by objectively viewing those of others.

That the environment plays a very important role in the modifying of inherent traits is well recognized. The committee on standards for the American Psychiatric Association recommends two to three social workers for each mental hygiene team. It is the social caseworker who, under the direction of the psychiatrist, interprets the problem in the home and environment and who, with her special training, works with the psychiatrist to modify the factors of the environment so that a compromise may be effected, assisting the patient in his adjustment.

In your clinic, the Delaware State Mental Hygiene Clinic, we are trying to carry out all the precepts of good mental hygiene. The problems are so great that no one agency can carry the burden alone. Mental health is a community problem and all agencies, schools and individuals must cooperate in a coordinated program if we are to conquer an illness which fills half the hospital beds in this country and causes economic and personal distress to many millions more.

REFLEX TREMOR

A special form of reflex dyskinesia

G. J. GORDON, M. D.,*

Farnhurst, Del.

According to Ford (1), four tremor types can be differentiated:

- 1) static tremor, rest tremor or parkinsonian tremor
- 2) intention, action or motor tremor
- 3) red nucleus tremor
- 4) irregular tremors.

Parkinsonian and nucleus ruber tremors are extrapyramidal in origin and differ only in that the ruber tremor is supposed to contain an intentional element in addition to the static component. They differ further in the number of vibrations or movement cycles per second (Morris, 2). Etiologically they appear more closely related than the other tremor forms and point to involvement of the brain stem. They are essentially members of the dyskinetic group of involuntary movements. As has been demonstrated by this author in another paper (3), dyskinetic movements may occasionally be abortive in appearance. They also may sometimes depend on various stimuli for their precipitation. In the latter case one is justified in assuming the existence of reactive forms of dyskinesia. In the same article it was also shown that the common maneuvers used in the elicitation of reflexes may engender dyskinetic movement responses, and thus the term reflex dyskinesia was introduced to designate the appearance of a dyskinesia in the manner of a reflex reaction.

In the case to be presented tremor appeared uniquely as a reflex phenomenon and was associated with a spontaneous dyskinesia of the choreic type.

Case study: H. C. M., a 55-year-old white man, had diabetes and high blood pressure for an unknown length of time. There was a history of a fall at an unknown date with subsequent unconsciousness lasting 15-20 minutes. From then on patient was plagued with occasional shortness of breath and choking sensations. There were frontal headaches. These headaches suddenly lessened in intensity when he developed involuntary movements in the right arm and fingers on June

* First Senior Assistant Physician, Delaware State Hospital.

19, 1945. His mouth twitched, also, and he "could hardly drag his feet."

Neurological examination of June 29, 1945:

Movements of the head were free. There was no tenderness of the skull to pressure or tapping except at the margins of the right orbit.

Extraocular movements were normal save for a slight flickering of the eyes, but there was no nystagmus.

The pupils were regular, equal and reacted normally to light and convergence. The eye-grounds revealed normal disks, however the retinal arteries were thin and somewhat tortuous.

Facial skin sensation and corneal reflexes were normal.

There were involuntary movements of the right facial muscles with a tendency of the right mouth angle to draw upward at irregular intervals.

The tongue would usually protrude in mid-line and show a steady fine tremor, although occasionally it deviated grossly to one side or the other.

Movements of pillars and larynx were normal.

The deep reflexes of the upper limbs were feeble on either side. The phalangeal reflex (Mayer) was stronger on the right than on the left. There were no spastic finger signs. The right fingers were held in bayonet posture. The right arm, hand and fingers showed marked involuntary movements and the fingers were moved independently at a fairly rapid speed.

The superficial abdominal and cremasteric reflexes were not obtained.

The quadriceps reflexes were positive, somewhat stronger on the right side. The ankle jerks were moderately active on either side. The plantaris reflexes were positive and equal. There were no spontaneous dyskinetic movements of the legs or feet.

The Oppenheim maneuver on the left side was followed by flexion and intense tremor of the left toes. The same procedure on the right resulted in marked toe tremors but no other distinct movement response.

There was no evidence of contralateral reactions or synkinesias. Sensory functions appeared grossly intact for all qualities.

Gait was broad-based with occasional stumbling. There was no swaying or falling in Romberg position.

Pointing tests revealed poor co-ordination of right arm movements and past-pointing of the right hand. The right leg went through staccato movements in the heel-to-knee test, however there was no distinct ataxia.

Physical examination revealed the following findings: BP 226/160. Dilatation of heart contour to the left. Second aortic sound snapping. Many musical rales over both lungs. Prolonged exhalation. Dyspnea. Cyanosis. Edema of the back of the right hand and of both ankles.

A spinal tap was done in sitting position. Spinal fluid pressure 34/33 mm. Hg. 2 cells per cu. mm. Wassermann negative. Globulin tests normal. Hemogram essentially normal. Blood urea N. 14, blood sugar 150 mgm. Blood serology negative.

Urine: acid, specific gravity 1020, trace of albumin, no sugar.

Progress: Patient was admitted to Observation Clinic on July 17, 1945. His neurological status appeared much the same. Skull x-ray was negative. In the flat plate of chest there was marked enlargement of heart to the left, some evidence of chronic passive congestion of the lung bases, no free pleural fluid. ECG revealed left ventricular preponderance with evidence of myocardial damage. The albumin-globulin ratio was 4.1/2.0. Sedimentation rate, icterus index and Van den Bergh reaction were normal. He complained of pain in the left kidney region, apparently due to infarction. Ultimately he became confused and delirious. Patient expired August 18, 1945.

Clinical Diagnosis:

Diabetes mellitus.

Hypertensive heart disease in a state of decompensation.

Hypertensive hemorrhagic encephalopathy with hemichorea and reflex tremors.

Infarction of kidney or spleen.

Autopsy findings:

Hypertrophy and dilatation of the left side of heart with a large mural thrombus at the apex of the left ventricle. This thrombus is laid down on a large infarction resulting chiefly from thrombosis of the anterior coron-

ary vessels. The posterior coronaries show partial occlusion and thrombosis. Slight thickening of the aortic valves. Scattered atheroma of the aorta.

Multiple organized lung infarcts and lung edema.

Massive enlargement of spleen with huge, old organized infarcts.

Pancreas and adrenals macroscopically negative.

Old organized anemic infarcts of right kidney. Small adenoma of left kidney. Skull and meninges, negative: The larger cerebral vessels are sclerotic. The superficial veins are congested. The brain tissue is edematous. In either putamen, particularly in the left, there are multiple small areas of hemorrhagic softening. The red nuclei show discrete structural changes, grossly affecting their contour in cross sections.

Correlation of clinical and neuropathological findings:

The dyskinetic movements of the spontaneous type, above described as hemichorea, may be brought into relation to the lesions in the putamen. The existence of a bilateral affection of the putamen in the presence of unilateral choreic symptoms appears difficult of explanation although a bilateral representation of extrapyramidal functions in the basal ganglia may be suggested by the pathological findings.

The reflex tremors deserve special consideration. They were evidently of the type described as red nucleus tremors, and their relation to the changes in the red nuclei is quite probable.

Whether the apparently denenerative changes in the red nuclei are dependent on the primary affection of the putamen on either side, cannot be definitely established although such relation appears anatomically plausible. According to Palmer (4), the globus pallidus receives fibers from the striatum, and pallidal cells send their axons partly into the ansa lenticularis to the lateral nucleus of the thalamus, the subthalamic nucleus and to the upper small-celled portion of the red nucleus. Mettler (5), asserts that a distinct fiber bundle, the pallido-rubral tract, links the pallidum with the mesencephalon as part of the ansa lenticularis. Riley (6) comments in his

atlas on this situation in a confirmative way, however indicates the conflicting opinion of Ranson and Ranson, denying the postulation of ansa lenticularis fibers ending in the red nucleus. On the other hand, Strong and Elwyn describe pallido-rubral fibers going to the red nucleus "either directly or after a relay in the nucleus of the tegmental field or zona incerta."

Summary:

In a case of circulatory encephalopathy, reflex tremor was observed as outstanding unusual feature in association with a spontaneous hemi-choreatic dyskinesia. Reflex tremor was evaluated as another form of reflex dyskinesia, hitherto apparently not described in the literature. The clinical findings were correlated with the results of the brain autopsy, the data of macroscopic examination only being available.

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HOMOSEXUAL PROSTITUTION

A Case Report

F. A. FREYHAN, M. D.,*
Farnhurst, Del.

A nineteen-year-old white male was sent to the Delaware State Hospital to be treated for homosexuality. He was arrested for prostitution and wearing a naval uniform. The patient told the police that he felt "thrilled" pursuing "young looking men such as soldiers and sailors." The social history revealed a psychopathic behavior pattern. He comes from a poor environment in a rural district in Southern Delaware. The parents paid little attention to the home. The father was often arrested for drinking. At the age of fourteen he came to the attention of the Mental Hygiene Clinic because of truancy from school, begging and obtaining money by false pretenses. On repeated occasions he was caught collecting money for school funds, Red

* Senior Assistant, Delaware State Hospital.

Cross, and other organizations, pretending that he was collecting the money in an official capacity whereas he kept the money for himself. At the same time he became aggressively homosexual in the class and became an annoyance to teachers and pupils. The teacher stated that his homosexuality was not of the usual type, seen in boys and girls during the puberty phase. They rather complained that he, in a most aggressive manner, pursued and persuaded boys to use him as a passive partner in regular homosexual practices. It became necessary to commit him to the Ferris Industrial School. Here, too, however, his homosexual conduct with other boys caused difficulties and he was finally placed in sleeping quarters in which he could not have contact with other boys at all. His homosexual urges became so persistent that it became practically impossible to manage him since he undermined the morale of the group of other boys. His parents took him home and attempted to interest him in a gainful occupation. Soon, however, patient was picked up by the police and placed in jail on a charge of having solicited funds for the Infantile Paralysis Campaign. He got from one trouble into another and decided to leave his home state and went to New York City. He worked around hotels and restaurants and he soon developed a commercial pattern of homosexual prostitution which he described as follows: "I like easy money and I know how to get it. I know that I am not too good looking but I am sure that I have some attraction over men because of the circles around my eyes, the way I walk and the way I look at them." He met his customers in the Times Square Area from where he took them to his hotel room. Patient emphasized that he always preferred men in uniform, men of younger age who looked well built. On many occasions he became friendly with them, accepted invitations to movies, dinners, and other pleasures. He strongly disliked drinking and he managed to stay away from taverns and bars. He contracted syphilis and developed an anal fistula. After a short period of hospitalization he neglected his illness and resumed his former activities. Finally, patient went as far as to dress himself in a Navy uniform which enabled him to go to service-

men and U. S. O. clubs. His activities with men in uniform led to his arrest.

PERSONALITY STUDY

Patient is of leptosome habitus, boyish in appearance. There were no significant physical findings. The blood Wassermann was strongly positive.

Patients accepted his hospitalization in a matter of fact fashion. He displayed a very eager and active disposition. Observation on the ward revealed him to be quite active, interested in working, and getting acquainted with other patients. He never seemed to be at a loss to occupy himself. Some difficulties were encountered when patient began to steal money and other objects from other patients. He showed a genuine talent to take advantage of others.

Patient is intellectually dull. He has no special interests and is completely indifferent to cultural subjects. His social concepts are crude, egocentric, and devoid of social responsibilities. He invariably uses inferior judgment in social situations, is undependable and dishonest with himself as well as with others. Patient stressed again and again that he was not sorry for any of his past experiences. He proudly disclosed that he had averaged \$40.00 per week in New York, and he added that he could hardly have earned as much as a laborer. He seemed at ease during interviews and he always talked freely and in a cooperative manner. The following information was obtained from him with regard to his psychosexual development. He had his first homosexual experiences at the age of twelve. When fourteen an uncle seduced him and used him as the passive partner during a homosexual intercourse. Patient derived satisfaction from homosexual practices at an age when this is not uncommon among boys. As he grew up, however, he failed to become interested in girls. He had already discovered that he could make a living by cultivating his homosexual practices. Patient was also interviewed under the influence of intravenously injected sodium-amytal. During these sessions he gave additional information about his experiences, however, he disclosed no essentially new material. The absence of any kind of inner conflict, the incapacity to use self-criticism are malignant symptoms of psycho-

pathic personality makeup. Motivational deficiencies are severe. He lives for the moment and does not care about the future. He is proud of his ability to attract the attention of other men. On one occasion he said: "It gives you a thrill to walk around Times Square, watch the crowds, to pick your man and make him."

PSYCHIATRIC EVALUATION

It is not intended here to discuss the various psychopathological aspects of the case. A great deal has been written about the psychopathology of ordinary prostitution whereas little work has been done on the subject of homosexual prostitution. It is generally acknowledged that this type of prostitution is by no means rare and recent statistics indicate a general increase in this type of activity. Realistic appraisal of the characteristics of this particular patient indicate a rather malignant type of psychopathic personality. His failure to develop any kind of self-criticism proved to be a severe obstacle to psychotherapy. This type of psychopath is as displaced in a mental institution as in a penal institution, yet there is no other place where such a person can be placed.

In view of his youth, one may consider lobotomy as a somewhat desperate attempt to change present personality patterns. Social rehabilitation could perhaps be attempted in a re-educational type of institution where he could learn a trade as well as the fundamentals of community life.

GROUP PSYCHOTHERAPY: AN AID TO DIAGNOSIS AND TREATMENT

WILLIAM C. ADAMSON, M. D.,*

Farnhurst, Del.

Military Psychiatry during the last five years has given impetus to group psychotherapy as an aid to diagnosis and treatment of neuropsychiatric cases. Although the majority of psychiatric problems resulting from active combat did not receive nor require "deep group psychotherapy methods" according to the studies of Rome (1), the cessation of hostilities along with an influx of immature teen-agers into the army resulted in psychoneuroses which seem to respond well to the "depth techniques" practiced by Burrow (2),

Schilder (3), Wender (4), and Shaskan (5). Furthermore, in view of the tremendous case load now falling upon the Veteran Mental Hygiene Clinics throughout the country it is worthwhile to examine this procedure as an effective expedient in the treatment of the psychoneuroses.

This paper deals with the use of psychoanalytic concepts in group psychotherapy in the treatment of those psychoneurotic casualties which occurred in the Philippine Theater from June through October 1946. It presents three cases out of sixty exposed to the procedure to illustrate group methods and how they may serve as an aid to diagnosis and treatment.

METHOD USED

The method used was similar to that used by Donald Shaskan (5) in which ten to fifteen were selected according to the provisional diagnosis obtained from a careful history and psychiatric examination. The group sessions were held for one hour daily, six days a week, for a period of four to six weeks at a maximum. The psychiatrist, as group leader, functioned in a "father-to-whole family relationship" described by Louis Wender (4). The men arranged themselves in an informal circle, were told to make themselves comfortable, smoke if they cared to, and that the group was to be looked upon as a "bull session where anything goes." The group leader then went consecutively around the group asking each man for his questions or comments. As questions were raised these were thrown back for other members of the group to answer until a "group cohesion" or interest in each other was obtained. Men were reluctant, at the outset, to discuss their intimate problems, but after the initial two or three hours together they became gregarious, spontaneous, and anxious to help themselves, as well as the other fellow, through their mental conflicts. Lecture and didactic explanations were kept at a minimum. No question was answered until the group had expressed its views on the subject. Often leading questions were asked by the leader to stimulate association of ideas and to allow spontaneous resolution of difficulties raised.

Material brought up first by the group dealt with hostility and aggression towards

* Junior Assistant Physician, Delaware State Hospital.

the army. This was accepted and handled by the leader. Gradually the men became interested in psychosomatic symptom formation, the meaning of functional disease, the significance and interpretation of dreams, the concept of the conscious and subconscious mind and more gradually brought up their individual problems.

The general tenor of the group leader was to encourage discussion on the individual problems and to guide the group into an understanding of the mental mechanisms at work in each individual in the group. Once these mechanisms became apparent to the individual, or partially so, he was encouraged to find a socially acceptable way of expressing his emotions, basic drives, and erstwhile unconscious feelings he now recognized as being a part of him, upon the group as a "sounding board."

CASE REPORTS

Case I: A twenty-three year old Italian soldier first hospitalized for a possible peptic ulcer. Specific laboratory studies were negative, but subjective complaints continued and with it developed an extreme degree of agitation and resentment towards the physician in charge. Although his outward behavior was suggestive of a psychopathic personality (i. e., glaring and hostile facies, negativism and determination not to cooperate), a careful anamnesis revealed that his early preschool and adolescent history was devoid of asocial or antisocial behavior. This fact was confirmed by Red Cross Social History procedure. Furthermore, his high school adjustment had been good and his antecedent thirty months of military history had been free of unstable, unmanageable or unpredictable behavior which characterized the constitutional psychopathic inferior seen in the military service.

Group Reaction: During the first two group meetings this patient sat and glared at the leader but added nothing to the group. After the first week he laughed at those of the group who admitted an emotional disturbance. The group, in turn, became aware of his extreme resentment and called his attention to it. At this point he suddenly got up and left the group. It has been noticed in group practice that rather than to retreat from the group as this patient did, the constitutional psycho-

pathic inferiors will deliberately attempt to break up the group by talking to other patients, coming in late, calling attention to activities occurring outside, passing cigarettes around the room at crucial intervals or during critical discussions and by spilling ash trays on the floor quite deliberately. On returning to the second week of group therapy this patient talked freely and criticized the Army Medical Corps, its "incompetence", and spoke of the many Lieutenants in its ranks not capable of handling their job. All this outburst was accepted by the group leader (a Lieutenant), much to the amazement and consternation of the patient. During the third week the individual told the group that he was the older of two siblings, that his father, once well-to-do, had never made a successful economic comeback after the market crash of 1929 and 1930. Instead, the patient was called upon to support the family. He pointed out that the family still looked to him for support which hindered his own plans for the future. From this it became apparent to him and to the other members of the group that he harbored deep seated contempt for his father and felt all authority incompetent and not dependable. Once this was understood the patient brought up quite spontaneously a recollection of how he had "deliberately" kicked a booby trap wire twenty-four months before when told by an officer to watch out for it. Fortunately no one was seriously injured, but the patient had continued to show marked anxiety whenever the word "booby trap" was mentioned or when he saw it in print. Furthermore, he was much relieved by telling the story and by the group's acceptance of his explanation of his behavior. After six weeks he saw through most of his difficulties and became adept in utilizing a keen sense of humor not heretofore appreciated by the patient as a means of getting rid of his "emotional tension." His stomach symptoms of nausea, epigastric discomfort before meals, and a squeezing sensation often associated with regurgitation after meals subsided. He was returned to duty where he continued to perform his assignments with dispatch.

Case II: A twenty-seven year old merchant seaman admitted with a history of numbness in both hands and a sharp, severe, radiating

pain extending from his left subcostal area down into his abdomen. His abdominal pain was so severe that he was unable to walk, remained doubled up in his bed, and presented a rigid abdomen without rebound tenderness. Onset of symptoms occurred shortly after taking a few drinks at the Manila Seamen's Club. Past medical history revealed that he had suffered a similar attack in 1941 when he was a pilot instructor in the Army Air Corps. He had had a second attack of numbness and left sided pain in 1944 when he was studied for three months in an Army hospital. His final diagnosis at that time was "Psychoneurosis from resentment of Army authority." Several days after being discharged from the service he had his third attack. None of his symptoms fit in the pattern of an acute abdomen and it was apparent that he was exaggerating his discomfort. Complete physical, neurological and laboratory studies were negative except for hypalgesia over both arms to the elbow, following no sensory nerve distribution, and a rigid abdomen which promptly relaxed after a sterile hypodermic injection.

Group Reaction: During the first two groups this patient felt that he was not properly placed in the hospital and insisted that he had an acute surgical abdomen. After much reassurance and hearing a brief explanation of the psychosomatics of some of the other cases in the group he became quite interested in the discussion. He asked many questions about the emotional content of the mind and how it could effect physical feelings of pain and numbness. By the fifth group his symptoms had cleared entirely and he admitted that his condition must be similar to those presented in the other members of the group, but he didn't know just where his conflict lay. During the second week of therapy he suddenly sat up, suggested that he "had it", and asked if he could relate it to the group leader in a personal interview. He was permitted to do this, but encouraged to tell the group about his experience. He finally related this story before the group:

In 1938 he had hesitated for "several minutes" to make a one hundred foot dive from an embankment, into a sixty foot deep stream of water to save the life of his girl friend who was being swept into an eddy several hundred

feet downstream. Although the girl was dead when he pulled her out of the eddy, he was considered a hero for having made the tremendous dive in an effort to save her life. Yet he himself felt guilty for having hesitated as long as he did before making the attempt. His attacks of numbness came in direct relationship to experiences connected with this incident. For example, in 1941 when he received a card from his mother stating that the dead girl's birthday fell on that day; in 1944 when the drowned girl's sister visited him in the Air Corps and they talked of the incident; in 1945 when the drowned girl's mother was at the patient's homecoming; and finally, in 1946, when the patient had had a drink at the Seamen's Club with the brother of the girl who had drowned, and whom he had not seen for five years.

It was after he had gotten this story out that he realized that the numbness he felt on his last admission was similar to that he felt while hesitating to make the dive on the river bank. The pain in the left costal area, he stated, was similar to that which he felt as his body hit the water after making the dive. The group accepted his story and reassured him that anyone would have hesitated before making that dive. This he had never been able to accept before, and he was very much relieved to find that the group accepted him as a hero for his effort. Perhaps the analysts would go further and say that subconsciously he wanted her to die and this was the real origin of his guilt feeling. That point-of-view is tenable, but in the interest of the patient's well-being he was encouraged to accept the group's reaction to his situation. He was returned to duty with complete understanding of the psychosomatic mechanism of his illness and was able to talk about the 1938 incident with the drowned girl's brother without any untoward symptoms.

Case III: Twenty-two year old colored soldier with three years military service prior to his admission. Gave a history of five bouts of wheezing and dyspnea. First occurred while he was under cross-fire in New Guinea in 1944. At this time he was temporarily separated from his outfit, became fearful and short of breath. Second time was after he had returned to his outfit and started thinking

about how close he came to being killed. Although eligible for discharge he elected to stay in the service for an additional three years and volunteered for duty in the Southwest Pacific Theater. On ship-board, two days before landing he had his third and fourth attacks which resulted in his first hospitalization when the ship surgeon diagnosed his condition as "bronchial asthma." His sixth attack occurred some seven months after he had been on the Island. He claimed the oil smell of the tent irritated his nose and soon he was incapacitatingly dyspneic. Again he was discharged from the hospital with a diagnosis of bronchial asthma, only to be readmitted one day later with the same complaint. Careful physical examination revealed no Cushman spirals in his sputum, no chest or x-ray findings consistent with asthma, and that he was employing voluntary movement of his epiglottis to obstruct his air passage to produce the misleading wheezing sound. Under sodium amytal narcosis and with individual psychotherapy very little concerning the emotional content of this soldier's battle fears or other possible psychogenic factors was uncovered.

Group Reaction: During the second group session this patient quite suddenly started wheezing and left the group. During the remaining period of six weeks very little of his "subconscious content of thought" was revealed. However, the wheezing attacks ceased entirely. And when he was accidentally exposed to an areosal spray bomb which had often produced an attack, no symptoms developed. He was returned to duty for a trial period and a three months follow up showed him to be symptom free.

DISCUSSION

Case I was presented to illustrate how group psychotherapy may serve as an effective method for the release of hostility which was blocking the emotional development of an aggressive personality. In the group the patient was allowed to compete with the group leader in unraveling the group problems, thereby releasing much of his hostility towards an authority figure.

Case II illustrated the element of rivalry between the members of the group and their personal desire to reach the level of improvement shown by the other members. Equally important in his case was the principle emphasized by Hadden (6) that "any symptom

produced by an emotion is very real, not imagined, but since such symptoms are not associated with destruction of organ tissue they can be relieved by correction of the faulty emotional state." Three earlier attempts to aid this patient failed when the doctors unintentionally led the patient to believe they felt his symptoms were the product of his "imagination," and it was through repetition of the psychosomatic mechanism and his awareness of its function in his fellow men that Case II was better able to understand his own behavior.

Case III illustrated the value of group therapy in producing symptoms for inspection, how they come to the surface once the group touches on the personal issue involved, and in this case how with the realization that his symptoms were functional he was relieved of his disabling respiratory efforts. But a psychiatric cure was not effected and it is reasonable to assume that this type of case would develop secondary somatic symptoms.

It was also apparent, as in the studies of Simon, Holzberg, Aaron and Saxe (7), that those men exposed to the group seemed to obtain a more socialized behavior pattern after its completion and showed less resentment and hostility toward the realities of Army life and Army hospitalization.

CONCLUSIONS

1. Group psychotherapy continues to have an important place in peace time military and veteran psychiatric treatment programs.

2. The three cases presented illustrate the method and principles of group psychotherapy outlined by Wender (4), to include, group interaction, catharsis, intellectualization and patient to patient transference.

3. Group psychotherapy, while only an aid, may serve as a worthwhile prelude to further personal analysis when indicated by allowing the individual to experience the dynamic principles expounded by the analytical school under controlled conditions.

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THE OBJECTIVE MEASUREMENT OF REALITY PERCEPTIONS IN DEMENTIA PRAECOX

JOSEPH JASTAK, Ph. D.* and
ESTHER STUBBS VIK, Ph. D.
Farnhurst, Del.

The original purpose of psychometric tests has been the accurate measurement of the relatively static concept of intellectual capacity. In more recent years, numerous attempts have been made to attack by scientific means several personality traits which, because of their dynamic and variable effects on behavior, have so far eluded exact mathematical analysis and precise clinical definition. Both clinical pattern analysis and statistical factor analysis, the latter practiced chiefly in academic research centers, have, it is believed, far-reaching implications in the study of the static and dynamic qualities of human personality.

In the Mental Hygiene Number of this Journal in June, 1946, Jastak and Gordon presented evidence that a non-intellectual trait exists in each human being which may be called "verbal polarity" or just "polarity." This trait determines the language abilities of individuals, their capacity for literacy, their proficiency in reading, spelling, information, vocabulary and in all the other primarily verbal functions of cognitive and emotional expression. This trait of polarity must be considered non-intellectual, because it seems to depend on the qualitative organization of the nervous system rather than on the amount of total brain power available to the individual. It may be closely associated with the lateral orientation, the mindedness, or handedness of people. That is why it is called polarity.

Whenever a great many areas of human achievement are subjected to accurate measurement, it is found that most people are good in some areas and poor in others. The differences between the highest and lowest accomplishments are small in some people and great in others. The extent of these differences has clinical significance. For, it is usually observed that those with normal personalities have narrow dispersions of test ratings, while those with abnormal and defective personalities have wide intra-individual test dis-

crepancies. It is also found that psychometric measures tend to vary in statistical clusters. Thus, qualitatively similar tests yield comparable quantitative patterns. These clusters, in turn, appear to be associated with definite clinical entities which are psychiatrically identifiable. While clustering of test results has been known to exist for many years, its practical meaning and its mathematical expression have never been adequately elaborated. The mentioned paper of last year was an attempt to objectify both the clinical phenomena observed in the realm of language aptitudes and the psychometric measures by which they may be properly represented.

Two preliminary steps had to be taken in order to assure a valid and meaningful analysis of test data. The first of these steps consisted of the discovery of a stable reference point from which test cluster measures in the form of deviation ratios may be computed. The average of the highest three test scores out of a much larger number of test indices proved the most valuable approach to this problem. The average of the three highest achievement scores is not just a convenient statistical technique. It has considerable psychological importance, as it is probably closely related to what may be called the individual level of maximum personality integration. In other words, it approximates the individual's level of potential native endowment. The assumption may be made that those who are close to their level of maximum mental integration have normal personalities, while those who are more or less removed from this level have abnormal personalities. Our reference point thus satisfies two criteria at one and the same time. First, it is a comparatively stable statistic and second, it has a positive relationship to intellectual potentiality and its ubiquitous but partial effect on life's adjustments in general. Being near the ceiling of one's achievement, the capacity rating accurately expresses the universally observed latency of natural brain power. This means, of course, that we may function in different things at the level of our capacity or far below it. It also means that some test clusters are closer to the top level than are others. The downward deviations of several test clusters may thus be assumed to represent the

* Chief Psychologist, Delaware State Hospital.

dynamic or non-intellectual attributes of the personality. One of these attributes is the aforementioned polarity of man. The deviations of the verbal cluster from capacity in a large sampling of the population are uncorrelated with the capacity measure itself. In popular language, this would mean that a person of average or high average capacity may actually be less proficient in over-all verbal efficiency than is a moron. Conversely, some morons have a more substantial command of language than have some individuals of average intelligence. In this way, language aptitude may be shown to be partly independent of one's intellectual endowment.

In the present paper, we propose to demonstrate how another dynamic trait of human psychology may be objectively measured by the use of deviation ratios from capacity level. This trait is most adequately represented by a cluster of five tests in an experimental psychometric scale which has been used in mental examinations of hospital patients in Delaware for the past four years. For the sake of comparison, we will use the same 40 patients of last year's study in the following discussion. Let us briefly review the previous findings. All 40 patients were diagnosed in psychiatric staff conferences as suffering from dementia praecox. These cases were selected for our study at random from a much larger group of patients suffering from a variety of mental illnesses. While the number of cases is relatively small, it is not believed that increasing the group to a larger number would modify the results to any significant degree.

In calculating the capacity ratings of our 40 patients, we found that they varied between the highest score of 136 and the lowest score of 64. The average capacity rating for the whole group was 99.6. Nearly fifty percent of these patients had capacity indices between 90 and 109. It is likely that the average capacity rating of our patients is comparable to the average capacity rating of the population at large. It is reasonable to assume that persons of all intellectual levels fall prey to the disease known as dementia praecox. All levels of education are represented in our group, from college down to third grade schooling. In the past, it has been difficult to adduce psychometric evidence that psy-

chotics are no less intelligent than are so-called normal people because of the effect of the disease process on some tests and because of the inclusion of these "contaminated" tests in the final intelligence quotients. But when the non-intellectual effects of the psychosis are eliminated from the results by psychologically differentiated procedures, the average patient who succumbs to dementia praecox is found to be as intelligent as is any non-psychotic group of similar age. Furthermore, it is probable that the various subgroups of dementia praecox—catatonic, paranoid, simple and hebephrenic—do not show material differences in level of intellect. At least, we have found no significant differences between them when they were grouped according to type.

The second trait assayed and described in last year's paper was the already mentioned polarity of the mind. Polarity is best measured by the following five tests: vocabulary, reading, information, analogies and comprehension. The arithmetical calculations are as follows: The standard scores of these five tests are arranged in order from the highest to the lowest. The three median scores are then averaged and the resulting average is divided by the capacity score of each patient. To make this deviation ratio comparable, the corresponding standard score is found for it in a master table of deviation ratios obtained from a group of over 400 normal individuals. When this was done for all 40 patients, it was found that the polarity standard scores ranged from 56 to 130. The average polarity score for the whole group was 99.1. On the basis of these results, it was concluded that there is no appreciable difference between schizophrenic patients and normal individuals in the distribution of polarity scores. In the clinical sense this would mean that as many schizophrenics are below and above the average deviation ratio in verbal polarity as are people generally. Thus, the trait of polarity does not offer any definite opportunity for differentiating between those who suffer from dementia praecox and those who do not suffer from the disease. Here again, the scores of the various subgroups failed to yield significant differences. The catatonic, paranoid, simple and hebephrenic types are equally verbal or non-verbal in their make-ups.

An important by-product of the polarity study is the refutation of the practice of using verbal tests as capacity indices from which efficiency quotients are calculated to measure the severity of the psychosis. We find that the vocabulary scores of many of our patients are far below the level of their capacity and therefore, if used as capacity indices as in the Babcock system of interpretation, may seriously misrepresent the degree and nature of mental disorganization present.

Emotional and cognitive dysfunctioning may be measured with relative ease by our method of deviation ratios from capacity. The notion of mental dysfunctioning is by no means an homogeneous one. There are probably several types as well as many degrees of disorganization. We are here chiefly interested in the disturbances of reality perceptions. Unrealistic thoughts and feelings leave an undeniable mark on psychometric tests. Failure in life and on tests has a multiplicity of causes within the individual or outside of him. Three of the inherent causes of failure are lack of intellectual capacity, unfavorable verbal polarity and breaks in the emotional and cognitive contacts with reality. The last of these conditions is especially prevalent among schizophrenic patients. The imperceptions and autistic interpretations of the world by these patients lead to psychometric deficiencies which are distinguishable from failures due to other causes. The method of choice in the measurement of different types of failures is the deviation ratio of a test cluster from the level of maximum integration. With the help of factor analysis, it has been found that the tests most sensitive to contact disturbances are comprehension, picture anomalies, picture reasoning, drawings and form boards. The deviations of the scores of these tests from the capacity score are positively correlated with one another. Hence, they may be thought of as measuring a comparatively homogeneous dynamic trait of the personality called orthotude. Orthotude may be clinically defined as the relevance of mental adjustments. It is the tendency of a person to do the right things at the right time in the right place.

Individual orthotude scores are calculated in a manner identical with that of all other

dynamic traits. The standard scores of the five tests of the cluster are arranged in order of their size from highest to lowest. The median three scores are then averaged. The average is divided by the capacity score and the corresponding standard score is found in a master table of deviation ratios.

The range of orthotude scores for our 40 patients varies from a low of 29 to a high of 121. The average orthotude score for the whole group is 64.3. Whereas 28 of our cases had capacity and polarity ratings above 90, only 5 of them have orthotude ratings above 90. More than half ($N=24$) of the group have orthotude scores below 70. The average orthotude scores are defective at all levels of native capacity and at all levels of verbal polarity. For comparison's sake, the distributions of the capacity, polarity, and orthotude quotients are listed in Table I.

Table I. The Distribution of Capacity, Polarity, and Orthotude Scores of 40 Patients of Dementia Praecox

Standard Scores	Capacity		Polarity		Orthotude	
	N	%	N	%	N	%
130 & above	3	7.5	1	2.5	0	0.
110 - 129	8	20.0	11	27.5	1	2.5
90 - 109	17	42.5	16	40.0	4	10.0
70 - 89	10	25.0	9	22.5	11	27.5
50 - 69	2	5.0	3	7.5	10	25.0
49 & below	0	0.0	0	0.0	14	35.0

It follows from Table I that those who suffer from dementia praecox do not significantly differ from the population at large in intellectual capacity or in verbal polarity. The scores in these two traits tend to distribute themselves normally in the patients as well as in the control group. On the other hand, the orthotude scores, reflecting the accuracy of reality perceptions, register substantial differences between the normal control group and our group of 40 patients. The distribution of the orthotude scores of the patients is markedly skewed and thus provides a simple and clear-cut differentiating sign between normal and schizophrenic individuals. There is also considerable agreement between psychiatric diagnosis and psychometric measures. Only three of our patients were said to be normal in their contacts with reality. These three exceptions were not, however, normal individuals. They displayed distinct inferiorities in other measurable psychometric traits. Whenever there is disagreement between psychiatric impressions and psychometric measurements, either one or both of the two comparative criteria may be at fault. Either the

clinical diagnosis is not wholly accurate or else the psychometric tests used do not fully demonstrate the nature or degree of the observed disturbances. Discrepancies between clinical diagnosis and psychometric measures rarely occur in typical cases of dementia praecox. Atypical cases merit closer study both from the psychiatric and psychometric angles. Their unrealistic behavior is usually found to be more benign than in those in which definite disorganization in reality contacts can be psychometrically demonstrated. However, their persistent maladjustments and severe emotional difficulties may be attributable to other factors than those associated with dementia praecox.

The trait of orthotude as measured by psychometric methods is relatively independent of other psychometric traits. In a random group of normal individuals the capacity scores are uncorrelated with any of the dynamic traits such as polarity and orthotude. Furthermore, there is zero correlation between the dynamic traits themselves. One of the features of the capacity score is that it is less variable and therefore more constant than are the scores of dynamic traits. The latter are subject to decline and subsequent restoration depending on the personality changes which occur as a result of disorganizing factors or as a result of medical treatment and psychotherapy. It is these changes which are responsible for the fluctuations in the traditional intelligence quotient. Global intelligence quotients are averages of several psychologically incompatible traits. Their increases and declines do not, as is sometimes believed, indicate a decline or rise in intelligence. Instead, the observed changes in either direction are the results of the variable deviation from capacity of a number of dynamic personality qualities which may be shown to be independent of native capacity. The dynamics of the personality determine the degree and efficiency with which the existing brain power is utilized. Two instances of the questionable interpretation of traditional intelligence quotients may be mentioned here. The now famous Iowa studies of several years ago tended to show that children placed in foster-homes improved in their "intelligence." More recently, it was demonstrated that epi-

leptic or epileptoid children treated with glutamic acid improved in their "intelligence." It is true that some of these children obtained higher I. Q.'s after foster-home placement and after treatment with glutamic acid than they did before. But whether these rising I. Q.'s are a sign of changing intelligence, is a different matter. For it could be easily demonstrated that the changes brought about by foster-homes or by glutamic acid are not changes in native capacity but in the use of the capacity that was present before placement or before medical treatment. Indeed, when the results of psychometric examinations are scientifically interpreted, the degree of expected improvement can actually be predicted. The child whose I. Q. rises from 85 to 125 following glutamic acid therapy was of superior intelligence to begin with. His superiority remained undiscovered by the examiner because of the use of unscientific methods of mental examinations. In the light of modern researches in psychometrics, upward or downward changes in psychometric scores may be the result of organizing or disorganizing changes in the personality which have a direct effect on certain test clusters. These test clusters reflect the dynamic fluctuations within the personality and have little or no relation to intelligence objectively measured and defined. That foster-home placement and glutamic acid are capable of raising a person's intellectual potentiality is a wholly unjustifiable conclusion. A moron so diagnosed by truly scientific means will not become average in intelligence no matter how good his home environment is and no matter how much glutamic acid he consumes. Many schizoid and epileptoid children are classified as deficient in native endowment when they are actually average or even superior. When treatment improves their personalities, they are said to grow in "intelligence." It is implied that glutamic acid is capable of growing gray matter. In reality, the widely publicized and misleading claims about the effect of glutamic acid and foster-home training upon intelligence are nothing more than an accumulation of diagnostic errors.

It must be emphasized that our concept of orthotude, as measured by the test cluster previously discussed, is only relatively homogene-

ous. Different tests of the cluster measure different aspects of reality perceptions which may yield important intra-cluster differentiations in future studies. Reality perceptions may be dimmed and distorted in a variety of psychiatric conditions. Paranoid conditions, manic-depressive psychoses, some neuroses, and several organic conditions may be associated with severe breaks in the patient's relationships with the surroundings. The trait is phenomenologically homogeneous at the psychic level but etiologically heterogeneous in so far as different causes may precipitate the same factorial patterns. Sensorial clouding and a raised threshold of consciousness will invariably lead to grave impairment of objective observation and sensible interpretation of mental experiences regardless of whether the psychiatric condition is a functional or an organic one. However, when enough tests are available and when the analysis of these tests is an accurate one, the intra-test patterns may be helpful in separating the differential effects of different conditions.

One interesting point in the objective analysis of psychometric data is the possibility of measuring several traits by one and the same test. For example, our comprehension test may be involved in the measurement of capacity, verbal polarity, and orthotude. A highly selective analysis of psychometric patterns will show this to be true of all single tests. Since the traits simultaneously measured by mental tests are general attributes of the personality, it is only natural that each such trait should express itself through the medium of each test. The influence of any trait is variable in each case and in each test. Therefore, the most advanced method of personality analysis is a strictly individual and a highly differentiated process. The purpose of future psychometric research will not be the decision whether a test measures intelligence or not but the exact determination of the extent to which it measures intelligence and all the other dynamic factors of the personality still to be isolated, defined, and measured.

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THE COMMUNITY AND THE SOCIAL WORKER

LILLIAN B. HANNAY*

Farnhurst, Del.

We are living in an alphabetical age. L. S. M. F. T. The radio has made L. S. M. F. T. a familiar sound in almost every home and whether or not we listen to the program, we have learned that L. S. M. F. T. stands for Lucky Strike Means Fine Tobacco and that A. B. C. stands for A—Always Milder, B—Better Tasting, C—Cooler Smoking. Always Buy Chesterfields. Were you to hear the letters S. W. and S. C. W. would you associate them with Social Worker and Social Case Worker or be able to define these terms as related to work in your community?

The tragic shooting of Ruth Reinecke, a State Board of Welfare Worker last September shocked social workers into awareness of how little the community understands social work. One must have some knowledge of social work to understand what a social worker is. We social workers have been at fault in assuming that the community either understood our work or that it didn't matter and we in this state have failed in our responsibility in that we have neglected to take the community into our confidence regarding our aims and responsibilities. We have forgotten that we cannot carry on good sound social case work without the understanding and assistance of the community and its resources. We may have new ideas, some of which are not tried and tested, and feel equipped to function in spite of the community, but we will soon be set back on our heels, and rightly so, till we learn that we can go only as fast as the community can accept our thinking and planning and that we must have community participation if we are to succeed.

MEDICINE AND SOCIAL WORK

In the early days of medicine doctors were confronted with skepticism and superstition when they prescribed new forms of treatment, i. e. it was years before the work of Louis Pasteur was recognized and vaccination against rabies, tetanus, etc., generally accepted.

The role of the social worker is less dramatic than that of the doctor and is characterized by patience, persistence and ability to wait for

* Chief Psychiatric Social Worker, Mental Hygiene Clinic.

the frequently slow development of results such as change in environment or personality. The social worker must understand the community; its cultural pattern, social development, and awareness of social and economic change, and be able to use all available resources in the community, particularly social, economic, health and religious. The social worker is accountable to the client and the community and it is her responsibility to put the client in touch with the resources of the community and give the help if necessary to use them. As the problems are modified by factors in the community so the social worker must change her approach in terms of social or economic aims. Economic well-being and social behavior are interrelated.

The doctor teaches the diabetic how to handle his own treatment and live with his disability; so the social worker helps individuals or families adjust to their problems, and if insuperable, to live with them. There are times when it becomes a social worker's responsibility to adjust the problems. This may mean teaching the need for developing new resources such as supervised recreation, playgrounds, or other community activities for adults and children; in other words promoting the welfare of the individual.

RURAL SOCIAL WORK SCOPE

Social work has always been an employed profession and very largely by public agencies. Much of the social work in Delaware is rural, but it differs from that in urban communities not at all in aims and objectives, but these are sometimes more difficult to achieve because of lack of community resources, which makes it all the more important that the social worker know her community. One thing a rural social worker needs to learn early is that public opinion and community pressures are forces to be considered; that a criticism is not to be brushed aside or ignored but used as an opportunity for interpretation and education of agency policy or individual case work.

EXPLORING RESOURCES

All public agencies must investigate financial as well as other resources. Sometimes this is questioned in connection with psychiatric social work, but we frequently find that

economic strain is a large factor in the individual's problem and until it is relieved, little can be accomplished in therapy. Granted, the case work approach is more businesslike in public welfare. Resources are often in a state of flux and rarely a permanent source of income so there must be very frequent checking. The client should be told this and the social worker's objectiveness can make it easier to take, but one must watch that the greater resistance is not in the worker rather than the client. This investigation must not become stereotyped, and sometimes income tax receipts, bank accounts, police records, death benefits, etc., must be investigated without the client's consent. A very destructive relationship is built up with the client and other members of the family and the community if hidden resources are not uncovered.

The client's application for any kind of assistance is a very important decision for him to make. This should be made clear to him in the initial interview, and if he should go to another agency because of his particular needs, this should be carefully planned with the client so that he will not feel he can shop around from one agency to another till he gets what he wants. When this happens the children become conscious of the fact that this is the way you get what you want. The children in the family are the citizens of our coming community; we have a responsibility in training them. They are aware of the needs in the home and can just as easily learn the necessity for careful evaluation of these needs when application for assistance is made, as to learn to shop around and to misrepresent so as to get the most aid. The agency needs to discharge its responsibility to the client, but must not lose sight of the fact that it is accountable to the community.

If the client finds the agency accepts his deception month after month, the children in the family will learn by example to practice deceit and that it is not necessary to report changing resources. When denied income is found, it may be necessary and constructive to prosecute if restitution is not made. This type of investigation is not "snooping" as some uninformed people like to call it, but a necessary part of the study. It may go hand in hand with planned treatment, for plans

must be flexible and readily changed as circumstances change.

However, one should not consider the financial investigation alone and lose sight of the client as an individual. Frequently the social and emotional problems are even more important but are subjective and we do not always realize when we have uncovered resources or great emotional needs unless we make a study of person-to-person relationships. A social case has been called a "Living Event" in which there are always physical, mental, emotional, economic and social factors in varying degrees. A well trained eye and ear can become astonishingly accurate in catching the emotional tones and the environmental factors.

INTERPRET CLIENT'S NEEDS

As the doctor is inside the hospital looking out so the social worker is on the outside looking in. All doctors have been trained to take a case history but the psychiatric social worker is oriented to medicine and psychiatry to supplement and fill in gaps by getting not only a knowledge of the present problem or experiences bringing client to clinic, but knowledge of early experiences, illness, economic status, family and group relationships as they throw light on understanding the individual.

We believe that the study and treatment of these emotional, educational, and conduct disorders will be successful in preventing more serious problems in later life and that the use of the combined knowledge of causation and treatment by the psychiatrist, psychologist and psychiatric social worker assists the individual in making a better social adjustment to his total environment. The social worker plays an important role in treatment after the Mental Hygiene Clinic study, in interpreting the client's needs to the family, school, employer, community and frequently enlisting their cooperation in carrying out recommendations particularly when a client is sensitive about his disability. An understanding attitude on the part of the community can be a big factor in his rehabilitation. The interpretation to the community of a client's needs may be very difficult. The community is not always in agreement and it may require a great deal of patience and understanding on the social worker's part to accomplish this. We

are all guilty at times of consulting physicians and then not taking the medicine as prescribed or carrying out their recommendations so we cannot always blame the community. Again let me emphasize the need for education through community understanding and participation. Our committees and board members have easier access to the community than the social workers as they are a part of the community and they can do much to promote better understanding. A social worker may serve a large area and so not be considered a member of individual communities in the area.

If the social worker goes about complaining about her co-workers or conditions in her agency, these gripes may be misconstrued by the public who feel that the client must suffer if the worker suffers. If she is irritated, hurried or too superior to explain diagnosis or agency plans in simple terms to a lay person, she cannot expect cooperation or respect for position in return. Sound training and years of experience and a well integrated personality are needed to make quick and accurate evaluations.

PROFESSIONAL ETHICS

A cooperative case is one in which planned treatment is carried on simultaneously by two or more agencies, for example, the Board of Health and the Mental Hygiene Clinic may be treating members of the same family or the Mental Hygiene Clinic treating a problem child in a family receiving relief. Cases must always be cleared with Social Service Exchange before treated to learn what other agencies may be active. This is professional courtesy but it does not mean that only one social worker may "practice" in the home as does professional courtesy in medicine. There must be one focus for treatment, however, and there should be case conferences between all interested agencies so that there is no duplication of effort. These conferences may be very interesting to the workers but time consuming and unproductive unless carefully planned. In these conferences members from organizations in the community that might assist in some way with social treatment should be included to widen community participation.

SOCIAL WORK DEFINED

Now can you define social work or social

(Concluded on Page 106)

+ Editorial +

DELAWARE STATE MEDICAL JOURNAL

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W. EDWIN BIRD, M. D. Editor
822 North American Building

JOHN F. HYNES, M. D. Associate Editor
1501 Van Buren Street

M. A. TARUMIANZ, M. D. Assoc. & Managing Editor
Farnhurst, Del.

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AT LAST

More than half a million men, women and children are in need of medical care in this country because of some type of psychiatric problem. This is the largest single medical problem in our country. At the present time the medical profession is not prepared to solve it. The immediate reason for this unpreparedness is the great shortage of psychiatrists. It is doubtful that we shall have sufficient competent personnel within the next decade to provide adequate care and treatment for the majority of those whose illnesses are emotional in origin. Our hope for its solution lies in obtaining the interest and support of every citizen throughout the country. This will require an extensive program of education, on a similar scale as cancer, infantile paralysis and other forms of illnesses. To this end a year ago "The Psychiatric Foundation" was established with the approval of the American Psychiatric Association and the American Neurological Association. In addition to the program of public education "The Psychiatric Foundation" will support

scientific plans to reduce the incidence of mental illness; will assist in establishing mental hygiene clinics to every community; and it will promote special hospital facilities for the treatment of children whose emotional disorders are so severe that they cannot be treated in their homes. It will encourage and assist medical schools in establishing adequate departments of psychiatry. It will promote psychiatric research work in various hospitals throughout the country. The Foundation will attempt to acquire and distribute funds for research in psychiatric problems.

In December 1946 the council of the American Psychiatric Association applied to the Psychiatric Foundation for a grant of \$10,000 for preparing the final draft of the form for hospital inspection and rating as well as a manual for hospital standardization. The council also applied for a grant of \$70,000 a year for three years to defray the expenses involved in the actual inspection of mental hospitals. The Psychiatric Foundation has allocated \$10,000 as requested and tentatively provided an expenditure of \$70,000 a year for actual inspecting and rating. The American Psychiatric Association will create a board for inspecting and rating of mental hospitals.

The Psychiatric Foundation has announced the main objectives of its program for this coming year.

1. The project of public education,
2. The project of inspecting and rating of mental hospitals,
3. The project of medical education,
4. The project of clinics,
5. The project of research.

The total project's budget is \$220,000 and \$65,000 for the operating expenses for the fiscal year.

We wish to congratulate the Psychiatric Foundation for its excellent program and wise decision as how to overcome the serious existing obstacles in psychiatry.

We can assure the board of directors of the Psychiatric Foundation that the medical profession of the state of Delaware will support the high principles, expressed in the program of the Foundation. We recognize the fact that a vast majority of our citizens are in need of psychiatric help.

THE COMMUNITY AND THE SOCIAL WORKER

(Concluded from Page 104)

case worker? Unfortunately we have no short definition and no descriptive term like lawyer, pediatrician, obstetrician, osteopath, butcher or baker. The following are some accepted definitions:

"Social case work consists of those processes which develop personality through adjustments consciously effected, individual by individual, between men and their social environment."

Social case work denotes a specific process through which an expert service is rendered to develop within the individual his fullest capacity for self maintenance and at the same time to assist him in establishing for himself an environment which will be as favorable as may be to his powers and limitations.

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AEROSINUSITIS

If you ever fly in an airplane at 18,000 feet or more and experience a sudden, sharp pain above either eye, something akin to a bee sting, it is very likely that you are suffering from aerosinusitis—a comparatively new word in the medical lexicon.

Aerosinusitis is an acute or chronic inflammation of one or more of the nasal accessory sinuses produced by pressure difference between the air inside the sinus and that of the surrounding atmosphere. It is commonly characterized by congestion and inflammation of the lining structures. Pain over the area of the sinuses is usually present.

Writing in the current issue of the *American Journal of Roentgenology*, Capt. John A. Cocke, formerly of the Army Medical Corps, says that from his experience in a general hospital in the European theater he believes the condition is more common than most flight surgeons realize. Dr. Cocke, who is connected with the University of Pennsylvania Hospital, Philadelphia, tells how x-rays are used to help in diagnosing the condition.

Here is what happens when a patient suffers from aerosinusitis in flight:

At high altitude the barometric pressure falls, and air escapes from the ostium (small opening) of the sinus. Where there is no infected material in the nasal cavity and no blockage, air re-enters the sinus and no pathologic condition results. But if there is infected material in the nasal cavity, often experienced after a cold, it is forced into the sinus by the increasing atmospheric pressure as the plane descends. Usually this phenomenon takes place without pain or other sensation but it represents a mechanism by which an uninfected sinus under certain circumstances may become infected. The trouble really begins when the nasal ostium of the sinus becomes covered by inflamed mucosa or redundant tissue, forming a ball-valve blockage, so that air cannot re-enter the sinus. This nearly always occurs when the plane descends. The air or gaseous contents of the sinus cavity are trapped.

This condition, says Dr. Cocke, may be labeled first degree obstructive aerosinusitis, and is characterized by only slight, if any, pain and usually insufficient symptoms to

come to the attention of a physician. Second degree obstructive aerosinusitis produces definite symptoms and findings. Pain and sensitivity over the sinus are present and remain sometimes as long as seven days after descent. Third degree aerosinusitis is the most severe. The differential pressure necessary to produce such a condition must be relatively great—18,000 feet or more. There is extensive swelling of the lining membranes, often accompanied by seepage of blood into the sinus cavity. The pain over and about the affected sinus is excruciating and the sensation is often described as resembling a bee sting. Recovery takes from seven to 21 days.

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Little has been written relative to diagnosis, clinical course or treatment of aerosinusitis, but with the great increase in aerial transport and the widespread use of low pressure chambers for the indoctrination of flying personnel, medical investigators are giving more attention to the condition.

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Approximately 60 per cent of the doctors also voted their agreement to a national service bill that would require all physicians to

serve the government in some capacity in the armed forces or in civilian communities.

Other results of the survey indicated that:

68.3 per cent of the doctors believe that all qualified civilian physicians should be required to serve in rotation on Selective Service Boards in their communities in the event of another national emergency.

65.6 per cent of the physicians feel that if more doctors had been released from their communities for military service it would have endangered the welfare of the civilian population.

55.8 per cent of the doctors believe that the community could not have been served in a reasonably adequate manner if there had been a large scale epidemic; 44.8 gave as one reason the insufficient number of physicians; 46.9 per cent gave an insufficient number of nurses as the reason; 7.9 gave inadequate supply of commonly used drugs and equipment and 6.8 per cent gave insufficient hospital facilities as the reason.

53.3 per cent think that civilian nursing and technical personnel was unduly and dangerously reduced by induction into the armed forces.

This cross section of physicians also indicated that they treated 76 per cent more patients in 1944 than in 1941 and were called on during this period to see approximately three-fourths more patients.

Dr. Dickinson feels that it is significant that 80.8 per cent of the physicians favor the formation of mobile civilian medical teams to supply areas stricken by epidemics and atomic or bacteriologic warfare. "It seems clear," states the author, "that if 81 per cent of the doctors are willing to support the formation of mobile civilian medical teams they are certainly aware that in the next war the task of taking care of civilians 'after the storm' may be a greater medical problem than the medical care of military personnel. The vote on this question clearly indicates that the civilian doctors of America are aware of the serious implication of possible atomic and bacteriologic warfare."

A series of questions asking the physician to state his opinion as to which of the listed civilian services were unnecessarily depleted in his community were checked as follows:

46.1 per cent checked hospital facilities as being unnecessarily depleted, 34.4 per cent checked private practice, 12.4 per cent checked medical education, 6.5 per cent checked possible public health, 2.7 per cent checked industrial medicine and one per cent wrote "Nursing" in the blank for Other.

The single flaw in the remarkable progress in the control of tuberculosis in the United States is the fact that the disease is still a major cause of death, killing more Americans than all other infectious and parasitic diseases combined. In spite of a constant search for drugs to effect a lasting cure, no substance has been found that is completely satisfactory. Various sulfonamides, although capable of modifying the disease in experimental animals, have proved too toxic for continuous use in human patients, and streptomycin, which provides considerable protection, has not effected permanent cure. Since no specific remedy has been discovered, the accepted methods of treatment, which have obtained excellent results in a great many cases, must be relied on. Editorial, *N. E. Jour. Med.*, Dec. 5, 1946.

A factor which has unquestionably retarded the control of tuberculosis has been an unwillingness on the part of the public and the medical profession to look upon tuberculosis as a communicable disease. The possibilities of prevention have been generally obscured by the stigma that has dogged the disease through the centuries. Henry D. Chadwick, M. D., and Alton S. Pope, M. D. *The Modern Attack, on Tuberculosis, The Commonwealth Fund, Revised, 1946.*

The average age of the population is increasing, the number of cases of tuberculosis in the aged is showing a commensurate rise. The disease in the elderly may be even more prevalent than mortality statistics suggest, since a significant number of deaths are not accurately reported. J. D. Wassersug, M. D., *N. E. Jour. of Med.*, Aug. 15, 1946.

Health, like freedom and wealth, cannot be given, but must be earned. Edward J. Steiglit, M. D., *A Future for Preventive Medicine, The Commonwealth Fund, 1945.*

